1 (1) GENERAL INFORMATION

2 (2) INFORMATION FOR SEQ. ID NO.1:

3 (i) SEQUENCE CHARACTERISTICS:

4 (A) LENGTH: 5001 BASE - #PAIRS

5 (B) TYPE: NUCLEIC ACID

6 (C) STRANDEDNESS: SINGLE

7 (D) TOPOLOGY: LINEAR

8 (ii) MOLECULE TYPE: GENOMIC DNA

9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.1

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12 GTTGCTGTTGCTGTTCTAGAACAATCCATACACACGATTAGATTGAGCTCACCTTCAGCT

13 CACGGAAAATTCTTCAGGCCTCAACCCTTCAGCTCCACCCTGCCTTTCTGGAAAAATGCA

14 CTCGTGGCTCTACAGGGTGAGCAACCAGGGGCGCAACTGCAGGGCATGCTCATACAGAAC

15 ATGCTGCCGCAGCTGATCATCGCTCAGCAGTGCAGTCAAGCTGCGCACTGGCAGCTTGCA

16 TTGTAGCTGGTGTACAACATTCCAGAAGCCGACTGGTATTCGTTGCAATTGTCACAATTG

17 TGACGCCCATGCAAGGCCCACGAGCAATATCGACTGCAGAACCCTGTGCTGGGATCTACG

18 GGAATGATTGGATTGGACGATGTCAGGGCGTTCGACAGCACCGTACCAAAGCTTGCCAAA

19 CTTTAGCAGCGGCTGCTAGCAACCACGAGATAAGCCATGGCCACAACCTTGCAACATCGC

20 GCATCTGCAGCCGCCGATGCATGCAAGGTCGGTGTTGTGCGGTTCCTGCTTGCTCTGCTT

21 CAGGCAACACAGCCTCCAGGTGTTCAACTTGAAGGTGTGACACCACTGGTGTGCTGGCAG

22 CTGGCCATTCGGTTTAAGCCAAGCAGTACAGCGCTGTCAGCTTCATCCCCGCCTGGTTAC

23 TGTGATGTATGTGCTTCTGATCAAGCGGTCCTCCATGCCGTCCGAACAGAACTGCGCTGT

24 AAGCTTACGCAGCCCCAACCGGCTCCGAGCAGCATGCCCTTAAGTGGCGGGAAAACTGCC

25 AGGGACGGTGTAAGGGCGCCATTCAGCGCTCGATACTGTAAGATTGTTTTAGATGAAACA

26 GAAATACACCTCCGGAGCTGCGAGTAGCGAGGTGATTTTGCATAAGGGATCCACACTGTT

27 GTGGGCGCACGTCCAAGAAATGTTTACCCGTTTCGATTGACAGCAAAACATCATGATCAT

28 CAAAGGAGTGCATCGACAGTCAACGATCACCAGGTGATTACGTTTGTCACTGACAAGCGC

29 CCTCTACGTGCGCCTTGGGCCTACATATGCCCTGCTGTGGGAGTACCCGTGCACAACAGA

30 GCGTTAGAGATACTTCATAGCTGCAACTAGACTACCTTTACCCTAACGAAATCACCCTAG

31 ACCGACAGTGTCGGAGTAGCTGCGACCCAAACGTGATGGCGAGCGGATTGCTTCTCAAGC

32 AGCGCTCGGTATGCCTGAGTGGCAACCGGGAGGTCGGTATGCTGTTTCTGTCCGCCCGCC

33 AGTGAACAGGCGGGCTGTGGTGGCAGCAGGTGCGCTTCTTCTGAAGGGCAGCTAGGGCTG

34 TTTCGGGCAGTGCATGCCGGCCTATTTTGGGTTGCTCGGAGCAATAATATGTACTATATT

35 GCTCTCGTGGAGCTGTGTTGCGCCACGTGCTTGCCTTGGCGCCTGTTGACCCCGGACCCT

36 CCACGTTGCTTCTTGCCGCTGCAGAGCGCAGGCGCCTTGTTGTGCGGGCAGCTGGCCCAA

37 CAGCAGAATGTGATTGCCCACCAGCTCCCGCGCCCAAGGCCCCGCACTGGCAGCAGACGC

38 TAGATGAGCTAGGTGAGCTGCGTGACATTGGAAGTCTGGTGTCCGCAACTGCTCTCTGTG

50

1   CATGCTGACATCCGGAATCAAGTGCCAAGAAGCAGGGCTCGTGTGGGTCATTTGTGGGCA

2   GGTTTGCAGCAGCTTGCCGTGTTCAAGCAGCAGCATGTGGGCTGACACATACTGCTGCCG

3   TGCTTCTGCTGTCCTGCAGCCAAGCCTAAGGAGCAGCGCAAGGTGATGATCGCCCAGATC

4   GCACCAGCAGTGCGCGTGGCTATTGCAGAGACCATGGGACTCAACCCTGGGGATGTGACA

5   GTTGGCCAGATGGTGACCGGCCTGCGCATGCTGGGCTTTGATTATGTGTTTGGTGAGTTA

6   CACAGTGTTTAGTGCTGCAGCAGTCCAGAGCAGCTTGTGCTAGTTGATGTTGATCCTTTG

7   GGCCTGGGATATCCAGCTGGACGTCTTACACTGTTTTTTTAGCGTCCGGAGTGGGCTAGT

8   CAACAACAGTGAGCGCTGTATCATGTGGTTTGTTCATGCGTGCGTCGCATGCATGTGGCC

9   TAACCAGCTGCTGCCAGCGTGTGCATGTGCTTGGTGCTGTTTTGGTGCTTGGCTGGTGAG

10   CAGCCGCTTTCTGTGTTTATGTTTGGCTCCTGTTCCATGCATGTTCTTTGTTCTGCTGTG

11   ACTCATCTACTGCTGCTGCTGGTGCATCTGCTGCTTGCAGACACGCTGTTTGGTGCTGAC

12   CTCACCATCATGGAGGAGGGCACAGAGCTACGGCACAGGCTTCAGGTCAGTGGTGATGGT

13   GTACTGCTGTGTTCATTATGCCATGAGGGACTTTGGTGTTGCCATCAACAGCTCACACTT

14   GTAGTTACTGGCGGTAGCTGCAGCGACAGGTGGATGCATATCCTGCAGCACATATCCTGC

15   AGCAGGCAGCAGCATTCATGCATGCATCCCTTTGCTCCCCTGTCTCCTTGTGCTGACAGT

16   GCTGCACACTAGCGCCAGCCACACCAGGGATGTCGATAACAATCAGTCTGATGTCATCCA

17   CGGTGTTTTAAAACACATCTCTTGCTGCTTGCTGCTTGCAGGACCACCTGGAGCAGCACC

18   CCAACAAGGAGGAGCCGCTGCCCATGTTCACCAGCTGCTGCCCTGGCTGGGTGGCCATGG

19   TGGAGAAGTCCAACCCCGAGCTCATCCCCTACCTGTCTTCCTGCAAGTCGCCCCAGATGA

20   TGCTGGGCGCAGTCATCAAGAACTACTTCGCTGCCGAGGCCGGCGCCAAGCCTGAGGACA

21   TCTGCAACGTGAGCGTGATGCCCTGCGTGCGCAAGCAGGGCGAGGCTGACCGCGAGTGGT

22   TCAACACCACAGGGGCTGGCGGCGCGAACGTGGACCACGTCATGACAACTGCAGAGCTGG

23   GCAAGATCTTTGTGGAGCGCGGAATCAAGCTGAACGACCTGCAGGAGTCGCCCTTTGACA

24   ACCCCGTCGGCGAGGGCAGCGGCGGCGGCGTGCTGTTCGGCACCACTGGAGGCGTGATGG

25   AGGCGGCGCTGCGCACCGTGTACGAAGTGGTGAGTGTCAGTGTGGCGGCAGCTGTGGGTT

26   GTATCGCAGCAGCAGTTTGCGCATTTGGCAGTAGTGCAGCATGTGCTGGCATGCGCAGAG

27   TTGCGCCCACCTGTGTTGGATGTGAGCTGGGTTTGCATAGAGGCGCCATCTGCAGAAGCG

28   TGCACTTCTGCATACTGCTGCTGCTGATCTACTGCCTTGCCTTTCACCATACCCGCCACC

29   CGTAATAATCTCTCCTGCTGCACTAGCCCTAGACAGTGCCAGACGTTGACGCTTTCTGCT

30   GCCGTGTTGTGCATCTCCACGCACCTCTGCTGCACCGCAGGTCACACAGAAGCCTTTGGA

31   CCGCATCGTCTTTGAGGACGTGCGCGGCCTGGAGGGCATCAAGGAGTCCACGCTGCACCT

32   CACCCCAGGCCCCACCAGCCCCTTCAAGGCCTTTGCAGGCGCAGACGGCACCGGCATCAC

33   CCTCAACATCGCGGTCGCCAACGGCCTCGGCAATGCCAAGAAGCTCATCAAGCAGCTGGC

34   TGCAGGCGAGAGCAAGTACGACTTCATCGAGGTCATGGCCTGCCCCGGCGGCTGCATCGG

35   CGGCGGCGGCCAGCCGCGCAGCGCGGACAAGCAGATCCTGCAGAAGCGCCAGGCGGCCAT

36   GTACGACCTGGACGAGCGCGCGGTGATCCGGCGCAGCCACGAGAACCCGCTGATTGGCGC

37   GCTGTATGAGAAGTTCCTGGGCGAGCCCAACGGCCACAAGGCGCACGAGCTGCTGCACAC

38   GCACTACGTGGCCGGCGGCGTGCCCGATGAGAAGTGAAGCGGTGGCTGGTGATGCTGGCT

1   GCGGCGAAGAAACGGTGGGCATGGTGGTGGGTGGGTTGCTGCATGGTGGTGTCGCTCGTG
2   CAGCATGGTGGGTTTGCGGTTGTGATGTTGGGCATGCTGCACGGAGGTGTTTGCATGGTT
3   ATGGATATGGTTCAGGTGCTGTGCTGCGTCGCATGCCATAAGCACCTTGTGACCCTGTGC
4   GATGCATAAAAATAGATATTGCCATTTGGTTCCAGGCTGGTGGTGGCAGTGGCTGGTTAA
5   CAGGGGAGTGTGTGTGTTTGTGTGTCTTCATTGTCGGTGTGTTCTTGCTGCATGTATTGT
6   AGTGTAATGGGTTATGCACGCCTGCATGCGCACGCGCTCCTCGTGCTGCGACAGTGCACA
7   ACGCACAGCGTGATACAGCTGCAGGACGTTTGCGGAAAAACACTTGTTACTGGTGACGGC
8   TGAAGCAGCGATGATGGAGAGAATGGATTCGCTGCTATCTCACAGGGCGTGGCTGCTGCA
9   TCGCCATGGCATGTCCCTGTTGCACGCAATTGCCTGCGTAATTTTGATAGTGGCAGCACT
10 GAGGCAGCTGCAAGGCCTTCTGCCAGCGGCTGTTTGTGTCCTATCTGTGTTTACAGGCAG
11 CTGCATTTGAAGGCAAGGGGGTTGGCCATCACTCACTTTGATCACTCACTTTGAAGCAGG
12 CTTCCATCCATGTATTGGTCAACGCACTGAAGTTCTTTTTTTGTCACCAGGCAGCAGTAT
13 TGTGTGCACACTACTTGCTATGGAGATGACAGCAGCATCAATCTCAAGCATGATGAAAGC
14 GTATGTTGTATCAGTGCCCCATTTTGCAGACTCTTAAGAGCTTTACCTTCTCAGGGGTTG
15 CAGCAGGTGGTGGTCAGCCAGTTGAGGGAGTGTGTGGCTGTTGTCTTGCCACCATGTGAG
16 TATTGAAACCACCATCCTGAGCTAAGTGTTCAGGCATCTTACCCTCATACCCCGCTACCC
17 TGCTACTGGGAGTTTCGTTTCATTGTATTGGCAGCCGTTTACTAATTAGTAATGGCGCTT
18 GAGCGAGGCATGTCTTGATATGTATGCCTTAGGAGAGTGTGAGCTCAACTCAATTCTCAT
19 AAGTGTAAGCCACACAACTGG
20

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2 (2)   INFORMATION FOR SEQ. ID NO.2:

3 (i)   SEQUENCE CHARACTERISTICS:

4 (A)   LENGTH: 5208 BASE - #PAIRS

5 (B)   TYPE: NUCLEIC ACID

6 (C)   STRANDEDNESS: SINGLE

7 (D)   TOPOLOGY: LINEAR

8 (ii)   MOLECULE TYPE: GENOMIC DNA

9 (xi)   SEQUENCE DESCRIPTION: SEQ. ID NO.2

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11

12 GATGATATGGATCGTCGTCTGGTGCTCAAGCTCATGGGTTTTGGCTGGCCGCCGACGCTG

13 TCCCGGAAGCACCAGCAGCAGCAGGGGCCAGGGGGTCGGGTGATGATGTGGGCGCGGTGT

14 ATGGAGGTGGCACCCTGTATGTTCATCTGGGCGCTTAATTGCGTTAAGCCATTCGAGCCC

15 ACTTCGGAGGCAAGTTCGATTTGGTGGCGTGAGATCCGCCTCACCCCGGTTACTGCACGT

16 GCAGGAGTGGTGTGCAGCAGTAGTCGGCAGGGTGTCCCCAGGTATTGTGGCGTTTGTCGC

17 ACGGTATGCCGGTGCAGTGCTCAGGTGCGTAAAGCGGCGCGTCGCGGTGTTGGTCGCAAC

18 CGGATGCTTGAAGCCGAAATCGCTTCGTCGGCACGTGTAAGTCATTGTTTGTTTGGGTGA

19 GCTTTGCTGGCAGCGTAGAACCGCTGTGGCGGACACACGCTCAGCAAGGGCCAAGGGGGG

20 CGTCCAAGCCAAGGTCCAAGCGCGCATCCCCTCACCCCTGCACCAATGTCCAACACCGAC

21 AGTAATCCACGCTCCGCTACGTCGCAAGCAGGCAATCATGCGTGTCTAACATGACTGAAC

22 TGCCCCGCTGCCCGTGAAGGGCGATCGTCACGAAGTTTTGTTTGCATGGTCGTATCGGTG

23 TATATGCGCACGCATTGTTGCCGACACAACGGACACAACTATCCGGCTGCCTACTGTTGT

24 ATAAGGGTCATAGAATCTAGCGTTATCCTTCCACGAGCGTGTGGCAGCCTGCTGGCGTGG

25 ACGAGCTGTCATGCGTTGTTCCGTTATGTGTCGTCAAACGCCTTCGAGCGCTGCCCGGAA

26 CAATGCGTACTAGTATAGGAGCCATGAGGCAAGTGAACAGAAGCGGGCTGACTGGTCAAG

27 GCGCACGATAGGGCTGACGAGCGTGCTGACGGGGTGTACCGCCGAGTGTCCGCTGCATTC

28 CCGCCGGATTGGGAAATCGCGATGGTCGCGCATAGGCAAGCTCGCAAATGCTGTCAGCTT

29 ATCTTACATGAACACACAAACACTCTCGCAGGCACTAGCCTCAAACCCTCGAAACCTTTT

30 TCCAACAGTTTACACCCCAATTCGGACGCCGCTCCAAGCTCGCTCCGTTGCTCCTTCATC

31 GCACCACCTATTATTTCTAATATCGTAGACGCGACAAGATGTCGGCGCTCGTGCTGAAGC

32 CCTGCGCGGCCGTGTCTATTCGCGGCAGCTCCTGCAGGGCGCGGCAGGTCGCCCCCCGCG

33 CTCCGCTCGCAGCCAGCACCGTGCGTGTAGCCCTTGCAACACTTGAGGCGCCCGCACGCC

34 GCCTAGGGTGAGGGCGACGCAGTGAACGCAGTTTCGATGGGTCACTTTGTCGCTTTTGCG

35 GAAGCCTCCGAAACGTCCCGCGAGGTTCAAACGGCCCCGAATGACCACACCCATATGGCC

36 ACTGGGAATAATAACGCAGCAACGTCGCTTGCGCGGCTGCCGCACCCGCTGCGGAGGCGC

37 CTTTGAGTCATGTCCAGCAGGCGCTCGCCGAGCTTGGAGCGAACGGCCGAGCGAGCGCGC

38 ACGCATTGTTGTGGTCAAGTCTCTCCACTCAGTCCGACCCCCCACACGGCGTAGGGGTCT

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 1   GAAGTCCACCAACTCCTCACACACCCCAAGGAAGGGACGTAAGCCCCCCTGGCTACGCTT
 2   TACCCAGCAGCCACAGCGACAGAGCGCCCCAACATAGGCTCGAGATAGAACGCACCTGAA
 3   CTGTGACACTTACAATGGAAAGGAACTGCGGATGGCCTTAAAGTCAAGCATTTTGTGACG
 4   AGTCGGCTCGGAATCCCCATCGGCGCCCGTCCGTTCGTCTTCATCACCGCCTGAAACGGC
 5   GCACGCGCAATAGTGCGCACTTGATGCCTTTCGGTCCAACGCCTCTGTCAGCTAACACTT
 6   TCCAGGGCCAGCGCGGACTCGAGAACCCTCTTTCCTGGCAACCTTGGTTTGGCTGGACCT
 7   GGCAACCTTGGTTTGGCTGGCACCAACCTTGACCCACATAAATCTCTCCCCCCCCCCCTT
 8   ATGCCCACAGCCAAGCCCAAGGACGACCCCACGCGCAAGCACGTCTGCGTGCAGGTGGCT
 9   CCGGCCGTTCGTGTCGCTATTGCCGAGACCCTGGGCCTGGCGCCGGGCGCCACCACCCCC
10   AAGCAGCTGGCCGAGGGCCTCCGCCGCCTCGGCTTTGACGAGGTAGGTGCGCTCGCTGCT
11   GCAGTGCCCAACACGCATCTTCCAGCTCACCGCCTCCAGTCAGCACCTTGGCATGCATGC
12   TTGGCGCATCTGCCGCCTCATTGCCGCCTCGCGGCCTCGCCGCTGCCTGCATCAAGCCTG
13   CCTGCCTGCCTGCCCGCCCTCACGCCCCAGGTGTTTGACACGCTGTTTGGCGCCGACCTG
14   ACCATCATGGAGGAGGGCAGCGAGCTGCTGCACCGCCTCACCGAGCACCTGGAGGCCCAC
15   CCGCACTCCGACGAGCCGCTGCCCATGTTCACCAGCTGCTGCCCCGGCTGGATCGGTAGC
16   AGCGCGGCGTGCTTGCTTAGGGCCCCATAACCTGTCTTGGGCCCCGGCGTCCGCCTCTC
17   CACCTACCTGCAACATGTACGTGCCTACGGTATTGTCGCATGTCTCTTGACGATTTGGGT
18   CGACCTTACCTTTGCCTTGTGTCCTTTCTCCACCCCCACCCGCCTCTTTCCTCGCCGGCC
19   CCCCTCGCGCAGCTATGCTGGAGAAATCTTACCCGGACCTGATCCCCTACGTGAGCAGCT
20   GCAAGAGCCCCCAGATGATGCTGGCGGCCATGGTCAAGTCCTACCTAGCGGAAAAGAAGG
21   GCATCGCGCCAAAGGACATGGTCATGGTGTCCATCATGCCCTGCACGCGCAAGCAGTCGG
22   AGGCTGACCGCGACTGGTTCTGTGTGGACGCCGACCCCACCCTGCGCCAGCTGGACCACG
23   TCATCACCACCGTGGAGCTGGGCAACATCTTCAAGGAGCGCGGCATCAACCTGGCCGAGC
24   TGCCCGAGGGCGAGTGGGACAATCCAATGGGCGTGGGCTCGGGCGCCGGCGTGCTGTTCG
25   GCACCACCGGCGGTGTCATGGAGGCGGCGCTGCGCACGGTGGGTCTGTGAGAGCCGGTTG
26   ATTGGCCCGGCAGAACGCATACACTTGCTGAACCTTTGATGCGGGATAAGCAAGGCTACC
27   GATCCGCGTCTTTTTACACCTGTTTATCACGTCGCTGAGCAAGCTCGTGACACCTGCAGG
28   CCTATGAGCTGTTCACGGGCACGCCGCTGCCGCGCCTGAGCCTGAGCGAGGTGCGCGGCA
29   TGGACGGCATCAAGGAGACCAACATCACCATGGTGCCCGCGCCCGGGTCCAAGTTTGAGG
30   AGCTGCTGAAGCACCGCGCCGCCGCGCGCGCCGAGGCCGCCGCGCACGGCACCCCCGGGC
31   CGCTGGCCTGGGACGGCGGCGCGGGCTTCACCAGCGAGGACGGCAGGGGCGGCATCACAC
32   TGCGCGTGGCCGTGGCCAACGGGCTGGGCAACGCCAAGAAGCTGATCACCAAGATGCAGG
33   CCGGCGAGGCCAAGTACGACTTTGTGGAGATCATGGCCTGCCCCGCGGGCTGTGTGGGCG
34   GCGGCGGCCAGCCCCGCTCCACCGACAAGGCCATCACGCAGAAGCGGCAGGCGGCGCTGT
35   ACAACCTGGACGAGAAGTGAGCGGGCGGCGCTGCTGGGATTGGGCAGGGGAGGGAAGGGA
36   CTGCGGGGCAGGGTGCGGCGGGAAACGGAAATGGGCAAGGCTCGAGGTGGAGGGCGGGGT
37   GGGTTGGGGGTTACTTGCTACAGGTTGGCGGGCAGGATGTGATGGAAGCAGTGTGGAGGAG
38   GTGTGCGTAGGGTCCCGACGACGGTATTCGCACGAGCAAAGAGGGTCGGCACTTCCTGAC
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1    ACAATGTGCGCCTGCACGTGCGCTCCTGTTGCTGCCCCAGGTCCACGCTGCGCCGCAGCC
2    ACGAGAACCCGTCCATCCGCGAGCTGTACGACACGTACCTCGGAGAGCCGCTGGGCCACA
3    AGGTGGGGGGGGGTTGTATACTACCAGCCCAAATGACGGGGCTGGTCGGGGGCGTTGGAGA
4    GGCGGGCCGGGAGGGAGGCGGGCTGGGTGTGGGGCAACAGCAGGTGAAGGGACGGGGGGG
5    CGCACTGGGCAGGGCGGTACATGCCTTGTCCTGATAGCTACCCACACGCGACTGTTGCTA
6    CATGGATGCATGACGTGTGCCGTGTGCTTGACCCCTGCAGGCGCACGAGCTGCTGCACAC
7    CCACTACGTGGCCGGCGGCGTGGAGGAGAAGGACGAGAAGAAGTGAGGAGCGCCAGAGGC
8    TCTTTGGGCGGAGACAGCTTCAAAGCGAGGGGGCGTATTAGCAGTACCGTAAATATGCAC
9    TGATGGGTGATGCGGGTGTCCTCCTTTATATTGAATGGGGTCAAAATAGGCGGCGGGTCA
10   AATGTTTCCTTTTTGAGTGGTGTCACAGCATGGGGCACGTGTGCGGAGGCCAGTTGCCCT
11   CCAGTGCACGCGCTCCCGGTGTGTGGCCGCACTGGCCTTGGATAATGCACCGGTGGAGGA
12   TTATGGAAGAGGGGGACTCAGAAGGCTCATTATTGGACAATGCCTGGTCTCTTCCACATT
13   GGTGTGAGCGCGGCTCCGCATAGGCTGTTCACTGCACGCTGGCATTAGGCGTAGGTACTG
14   GCATGAGGGAGCGCGGCTTGCTAACCGAATGGCGTATCCCTCCAGGGCACGTCGGAATGG
15   CGCGTGCCCATCAACGCAAATTCTTGGCCTTCATCGCTTCTGGATATTGAAGCTGCACAA
16   ACCTGCATTCTATTTGCTTGTTTACACGTGCCCCAATCTTGGTTGGAAGCTAAACATGTT
17   TGGGAACAATTCATCTTACTAAAGCGTGTGGGGGTTGAGGATGCGCACGTTGTGCGCTGG
18   TGGGTGGGCGGGAACGTGGGTAGCATTTAGGCTAGCTGGCATACGACAACGGGGCCCGTG
19   AGGATTGAGCACTTGACTCGCGAACTTATGAACGTAGCGCTTTATACCCACCGTATGCGA
20   TTGACGTTGGTGTAGGCAACCAGGCGGTAGGAAGGCGGAGAGATGCATTGCAAACGCCTG
21   TAAAAGAACGGCATAGCTACTAGACACTCTGATGTGGACCCTTGGCGCAGCCACGACAGG
22   AGAGGTGTGCATCAGCCGCTTGTAAGCACGCACTTCTGAGAAAAAAA
23
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(2)   INFORMATION FOR SEQ. ID NO.3:

(i)   SEQUENCE CHARACTERISTICS:

(A)   LENGTH: 3265 BASE - #PAIRS

(B)   TYPE: NUCLEIC ACID

(C)   STRANDEDNESS: SINGLE

(D)   TOPOLOGY: LINEAR

(ii)   MOLECULE TYPE: GENOMIC DNA

(xi)   SEQUENCE DESCRIPTION: SEQ. ID NO.3

GCGGAATTACTAGTGATAAGCAGTGGTAACAACGCAGAGTCGCGGGCAGGGACTCGATCA

GTTGTTATGTGTTGCCCCGTGGTTGCAAGTAGGCACGCAGGGCGTGCAAGGCATGTTGCT

GTCCGTGCAGCAGGGCCAACATCTGAGTGTGATTGTCCTCCAACACCTCAGGCCAAGCTG

CCTCACTGGCAGCAGGCTCTGGATGAGCTCGCCAAGCCCAAGGAGAGCAGGAGGTTGATG

ATCGCGCAAATCGCCTCCGCTGTTCGTGTCGCTATTGCTGAGACCATTGGCTTGGCCCCA

GGAGATGTCACCATTGGGCAGCTCGTGACTGGGCTGCGTATGCTTGGCTTTGATTATGTC

TTTGGTAAGCAGCAGCATCTTGCATTACACTTGCAGTTGGTCGTCACATGCACCTAATCA

GATGTTAGCCCTCTGGAACATTTTTGCCTGTTTGGTGCTTACCTGACCAACTGCTGCCTG

GTATGGCCAACTTGTGAAGCTGCGTGTGTTGGCGTTGCTACAGACACCCTGTTTGGTGCT

GACCTGACCATTATGGAGGAGGGAACGGAGCTGCTGCATCGCCTGCAGGACCATCTGGAG

CAGCACCCCAACAAGGAGGTGAGTAAGCCAGCTGGGTGGTCTACCACCCAGCACCAGCTC

GAGACAGCAGCCTTGCATCAACACTCACAACGTCTAGCTCCTCCTTAAATGAGCGGACCA

AACCTGTGAGTGGCACCATGTCAGCTGCCCCTCGCACCAAAGCACAGCATGGCCTGTCTG

TCGTCGATTGCCACATGAGTGTTTGCGTTGTTATGCAAGTGCCTGAACAAACTGCATATT

CCTGTGTCTCTCTGCGTTCGCACAGGAGCCACTGCCCATGTTCACCAGTTGCTGCCCAGG

CTGGGTTGCCATGGTTGAAAAGAGCAATCCTGAGCTCATCCCCTACCTGTCATCTTGCAA

GTCGCCTCAGATGATGCTTGGGGCCGTTATCAAGAACTACTATGCACAGCAGGTTGGAGT

GCAGCCCAGTGACATCTGCAACGTGTCAGTCATGCCATGCGTACGCAAGCAGGGAGAGGC

TGACCGGGAGTGGTTCAACACCACAGGTGGGCGCAGGCAGTGTATCACCAGTACTGGTGT

TCTCCGTGTGTTGTCAGTGTGTCTGTTAGAGGCTGGATACTCTCCAGTGCAGTGCTGATG

CAGAGTGGCGGCTGGTGTGCAGCAGCGACCCCAAGAACACTGAGAGCTGGCAATTCAATG

GGCTTGCTTGCTTACTGTCAGCTTCCTTTTCCTGCAGGTGCAGTGACATACGGTCTGCAT

CAAGGCTCAAACATGTTGTGTATGTATGTGTGATGTTGCAATTGCAGGCCTTGCCCGTGA

TGTTGATCATGTGGTGACTACTGCTGAGGTTGGTAAGATATTCCTGGAGCGTGGCATCAA

GCTGAATGAGCTGCCAGAGAGCAACTTTGACAACCCCATTGGCGAGGGCACAGGTGGTGC

TCTGCTGTTTGGCACCACTGGAGGTGTCATGGAGGCAGCACTTCGCACAGTCTATGAAGT

GGTGAGTGGTACTGCTTCAGTTTCAGTCAGTGTACCAACCAAGCTACTGCAATTGCATAG

1 CGCCAGTTTTCTGCCATCAATGACCTGCTTTGTAAGTAGCTGATACTTTACCAACCACTG

2 GTATTTGTGGTTATCCTGCCATAGCACATGCCTTCTCCTGCTGTTGGCTTTATCAACCTG

3 TTGGTCTATGTGTCACTGCTGTGCTGCAGGTTACCCAGAAGCCCATGGGTCGTGTTGACT

4 TTGAGGAGGTGCGAGGCCTTGAAGGAATCAAGGAGGCAGAGATCACACTCAAGCCAGGAG

5 ACGACAGCCCATTCAAAGCCTTCGCAGGAGCTGATGGGCAGGGCATCACGCTCAAGATTG

6 CAGTAGCCAATGGGCTTGGCAATGCCAAGAAGCTCATCAAGAGCCTGTCAGAGGGCAAGG

7 CCAAGTATGATTTCATTGAGGTCATGGCATGCCCTGGTGGCTGCATTGGCGGAGGCGGTC

8 AGCCCCGCAGTACTGACAAGCAGATCCTGCAGAAGCGCCAGCAGGCTATGTACAACCTGG

9 ATGAGCGCAGTACCATCCGCCGCAGCCATGATAACCCATTCATCCAGGCGCTGTATGACA

10 AGTTCCTAGGCGCACCCAACAGCCACAAGGCACATGATCTGCTGCACACACACTATGTGG

11 CAGGTGGAATTCCAGAGGAGAAGTGAGGGACCGAGGCCGGAGTGGTGTTATTAGTGTAGA

12 GCTAGGCAGCAGGGATCTGGCCGCATTTGGGTGCTGTTGTTTGGTTTGGCATCAAAGATA

13 TGATGAATGTACAATCTATTGGGTTCTTTGTATCTCATTCATGACTGCTGCTTGGTGAGG

14 TATGGGCCAGGAAGAAGCCCGCATCAATGCATGTGAACTAGGTGGCTCCACATATGAACC

15 CTATCTGGATGTTTAAGGTACCTGAAACAATAGTGCATCGGCTCTGCATGGCTCAACAAC

16 CTGTCTTCAGAGCAGGTGTATTCCACACCATCTTGATTTACCTACCACTCTGTAGTTCAA

17 GTGGTCAAATTGAATGTCTATGGCAGCTACGCCTGCAGTTCATAGTCTATGAAGGTTTCA

18 CCAGAGTCCATGTCCCTCATATTTTTTGTTTTATATGCCTTGATTATGCCCCTTGAACCA

19 TGCTCAATGCACACAAGTTGGTCGCAGGACAGGCGGCATCGTACATCTCAATTTTCAGAA

20 CTTGTCAGTGCGGCATTGCCTTATTTGTACTCTTGCAGTCCTGTTTCACCCTTGCTACTG

21 CCTTGCATGCATCTTGTTTTTTGCAAGCAACAGCTCATGCATTGCAATCGATCATCACGTA

22 CATCCGTGCCATATTCACATGGTTTTGACTTGCAAATCAACCACCAGGCAGTGGGTAAAT

23 TGCCAGGCTGGGTGCACTTTGGGCCATTTGGGCAGCCCTCTTGTGGCGAGCTTTGCTGCA

24 GGGCCAAGCTGAGTGCATCAGACTCAGCAGGCTGCTGCTGGCACTGTAGAATGCTGAAAA

25 GGGCATTCAACTACATGTCATTATTAGGTTGACCTGAGACAGCCGTAAGAATATCATTGT

26 GTGCTGAACTTAGTCGTCAATGTCATGCCATGATGTGTGTTTCAGGGATGGATAAGGGAG

27 GTCCTTCCTCAATTACATGCCTTTCAAGAGACTTCAATATCTGTTGTCAGTGACTTGTTT

28 GTGTTTGCTTAATCCAGTGGTTCTC

29

1 (2)   INFORMATION FOR SEQ. ID NO.4:

2 (i)   SEQUENCE CHARACTERISTICS:

3 (A)   LENGTH: 448 AMINO - #AMINO

4 (B)   TYPE: AMINO ACID

5 (C)   STRANDEDNESS: SINGLE

6 (D)   TOPOLOGY: LINEAR

7 (ii)   MOLECULE TYPE: ~~PROTIEN~~ PROTEIN

8 (xi)   SEQUENCE DESCRIPTION: SEQ. ID NO.4

9

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12 MPEWQPGGRYAVSVRPPVNRRAVVAAERRRLVVRAAGPTAECDCPPAPAPKAPHWQQTLD

13 ELAKPKEQRKVMIAQIAPAVRVAIAETMGLNPGDVTVGQMVTGLRMLGFDYVFDTLFGAD

14 LTIMEEGTELLHRLQDHLEQHPNKEEPLPMFTSCCPGWVAMVEKSNPELIPYLSSCKSPQ

15 MMLGAVIKNYFAAEAGAKPEDICNVSVMPCVRKQGEADREWFNTTGAGGANVDHVMTTAE

16 LGKIFVERGIKLNDLQETPFDNPVGEGSGGVLFGTTGGVMEAALRTVYEVVTQKPLDRIV

17 FEDVRGLEGIKESTLHLTPGPTSPFKAFAGADGTGITLNIAVANGLGNAKKLIKQLAAGE

18 SKYDFIEVMACPGGCIGGGGQPRSADKQILQKRQAAMYDLDERAVIRRSHENPLIGALYE

19 KFLGEPNGHKAHELLHTHYVAGGVPDEK

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 2    (2)     INFORMATION FOR SEQ. ID NO.5:

 3    (i)     SEQUENCE CHARACTERISTICS:

 4    (A)     LENGTH: 497 AMINO - #ACIDS

 5    (B)     TYPE: AMINO ACID

 6    (C)     STRANDEDNESS:  SINGLE

 7    (D)     TOPOLOGY:  LINEAR

 8    (ii)    MOLECULE TYPE:  PROTEIN

 9    (xi)    SEQUENCE DESCRIPTION: SEQ. ID NO.5

10

11

12    MSALVLKPCAAVSIRGSSCRARQVAPRAPLAASTVRVALATLEAPARRLGNVACAAAAPA

13    AEAPLSHVQQALAELAKPKDDPTRKHVCVQVAPAVRVAIAETLGLAPGATTPKQLAEGLR

14    RLGFDEVFDTLFGADLTIMEEGSELLHRLTEHLEAHPHSDEPLPMFTSCCPGWIAMLEKS

15    YPDLIPYVSSCKSPQMMLAAMVKSYLAEKKGIAPKDMVMVSIMPCTRKQSEADRDWFCVD

16    ADPTLRQLDHVITTVELGNIFKERGINLAELPEGEWDNPMGVGSGAGVLFGTTGGVMEAA

17    LRTAYELFTGTPLPRLSLSEVRGMDGIKETNITMVPAPGSKFEELLKHRAAARAEAAAHG

18    TPGPLAWDGGAGFTSEDGRGGITLRVAVANGLGNAKKLITKMQAGEAKYDFVEIMACPAG

19    CVGGGGQPRSTDKAITQKRQAALYNLDEKSTLRRSHENPSIRELYDTYLGEPLGHKAHEL

20    LHTHYVAGGVEEKDEKK

21
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2   (2)   INFORMATION FOR SEQ. ID NO.6:

3   (i)   SEQUENCE CHARACTERISTICS:

4   (A)   LENGTH: 436 AMINO - #ACIDS

5   (B)   TYPE: AMINO ACID

6   (C)   STRANDEDNESS: SINGLE

7   (D)   TOPOLOGY: LINEAR

8   (ii)   MOLECULE TYPE: PROTEIN

9   (xi)   SEQUENCE DESCRIPTION: SEQ. ID NO.6

10

11

12   MCCPVVASRHAGRARHVAVRAAGPTSECDCPPTPQAKLPHWQQALDELAKPKESRRLMIA

13   QIASAVRVAIAETIGLAPGDVTIGQLVTGLRMLGFDYVFDTLFGADLTIMEEGTELLHRL

14   QDHLEQHPNKEEPLPMFTSCCPGWVAMVEKSNPELIPYLSSCKSPQMMLGAVIKNYYAQQ

15   VGVQPSDICNVSVMPCVRKQGEADREWFNTTGAGLARDVDHVVTTAEVGKIFLERGIKLN

16   ELPESNFDNPIGEGTGGALLFGTTGGVMEAALRTVYEVVTQKPMGRVDFEEVRGLEGIKE

17   AEITLKPGDDSPFKAFAGADGQGITLKIAVANGLGNAKKLIKSLSEGKAKYDFIEVMACP

18   GGCIGGGGQPRSTDKQILQKRQQAMYNLDERSTIRRSHDNPFIQALYDKFLGAPNSHKAH

19   DLLHTHYVAGGIPEEK

20

1

2 (2)   INFORMATION FOR SEQ. ID NO.7:

3 (i)   SEQUENCE CHARACTERISTICS:

4 (A)   LENGTH: 2636 BASE - #PAIRS

5 (B)   TYPE: NUCLEIC ACID

6 (C)   STRANDEDNESS: SINGLE

7 (D)   TOPOLOGY: LINEAR

8 (ii)   MOLECULE TYPE: MRNA

9 (xi)   SEQUENCE DESCRIPTION: SEQ. ID NO.7

10

11

12 ACAACAGAGCGTTAGAGATACTTCATAGCTGCAACTAGACTACCTTTACCCTAACGAAAT

13 CACCCTAGACCGACAGTGTCGGAGTAGCTGCGACCCAAACGTGATGGCGAGCGGATTGCT

14 TCTCAAGCAGCGCTCGGTATGCCTGAGTGGCAACCGGGAGGTCGGTATGCTGTTTCTGTC

15 CGCCCGCCAGTGAACAGGCGGGCTGTGGTGGCAGCAGAGCGCAGGCGCCTTGTTGTGCGG

16 GCAGCTGGCCCAACAGCAGAATGTGATTGCCCACCAGCTCCCGCGCCCAAGGCCCCGCAC

17 TGGCAGCAGACGCTAGATGAGCTAGCCAAGCCTAAGGAGCAGCGCAAGGTGATGATCGCC

18 CAGATCGCACCAGCAGTGCGCGTGGCTATTGCAGAGACCATGGGACTCAACCCTGGGGAT

19 GTGACAGTTGGCCAGATGGTGACCGGCCTGCGCATGCTGGGCTTTGATTATGTGTTTGAC

20 ACGCTGTTTGGTGCTGACCTCACCATCATGGAGGAGGGCACAGAGCTACTGCACAGGCTT

21 CAGGACCACCTGGAGCAGCACCCCAACAAGGAGGAGCCGCTGCCCATGTTCACCAGCTGC

22 TGCCCTGGCTGGGTGGCCATGGTGGAGAAGTCCAACCCCGAGCTCATCCCCTACCTGTCT

23 TCCTGCAAGTCGCCCCAGATGATGCTGGGCGCAGTCATCAAGAACTACTTCGCTGCCGAG

24 GCCGGCGCCAAGCCTGAGGACATCTGCAACGTGAGCGTGATGCCCTGCGTGCGCAAGCAG

25 GGCGAGGCTGACCGCGAGTGGTTCAACACCACAGGGGCTGGCGGCGCGAACGTGGACCAC

26 GTCATGACAACTGCAGAGCTGGGCAAGATCTTTGTGGAGCGCGGAATCAAGCTGAACGAC

27 CTGCAGGAGACGCCCTTTGACAACCCCGTCGGCGAGGGCAGCGGCGGCGTACTGTTCGGC

28 ACCACTGGAGGCGTGATGGAGGCGGCGCTGCGCACCGTGTACGAAGTGGTCACACAGAAG

29 CCTTTGGACCGCATCGTCTTTGAGGACGTGCGCGGCCTGGAGGGCATCAAGGAGTCCACG

30 CTGCACCTCACCCCAGGCCCCACCAGCCCCTTCAAGGCCTTTGCAGGCGCAGACGGCACC

31 GGCATCACCCTCAACATCGCCGGTCGCCAACGGCCTCGGCAATGCCAAGAAGCTCATCAAG

32 CAGCTGGCTGCAGGCGAGAGCAAGTACGACTTCATCGAGGTCATGGCCTGCCCCGGCGGC

33 TGCATCGGCGGCGGCGGCCAGCCGCGCAGCGCGGACAAGCAGATCCTGCAGAAGCGCCAG

34 GCGGCCATGTACGACCTGGACGAGCGCGCGGTGATCCGGCGCAGCCACGAGAACCCGCTG

35 ATTGGCGCGCTGTATGAGAAGTTCCTGGGCGAGCCCAACGGCCACAAGGCGCACGAGCTG

36 CTGCACACGCACTACGTGGCCGGCGGCGTGCCCGATGAGAAGTGAAGCGGTGGCTGGTGA

37 TGCTGGCTGCGGCGAAGAAACGGTGGGCATGGTGGTGGGTGGGTTGCTGCATGGTGGTGT

38 CGCTCGTGCAGCATGGTGGGTTTGCGGTTGTGATGTTGGGCATGCTGCACGGAGGTGTTT

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1   GCATGGTTATGGATATGGTTCAGGTGCTGTGCTGCGTCGCATGCCATAAGCACCTTGTGA
2   CCCTGTGCGATGCATAAAAATAGATATTGCCATTTGGTTCCAGGCTGGTGGTGGCAGTGG
3   CTGGTTAACAGGGGAGTGTGTGTGTTTGTGTGTCTTCATTGTCGGTGTGTTCTTGCTGCA
4   TGTATTGTAGTGTAATGGGTTATGCACGCCTGCATGCGCACGCGCTCCTCGTGCTGCGAC
5   AGTGCACAACGCACAGCGTGATACAGCTGCAGGACGTTTGCGGAAAAACACTTGTTACTG
6   GTGACGGCTGAAGCAGCGATGATGGAGAGAATGGATTCGCTGCTATCTCACAGGGCGTGG
7   CTGCTGCATCGCCATGGCATGTCCCTGTTGCACGCAATTGCCTGCGTAATTTTGATAGTG
8   GCAGCACTGAGGCAGCTGCAAGGCCTTCTGCCAGCGGCTGTTTGTGTCCTATCTGTGTTT
9   ACAGGCAGCTGCATTTGAAGGCAAGGGGGTTGGCCATCACTCACTTTGATCACTCACTTT
10  GAAGCAGGCTTCCATCCATGTATTGGTCAACGCACTGAAGTTCTTTTTTTGTCACCAGGC
11  AGCAGTATTGTGTGCACACTACTTGCTATGGAGATGACAGCAGCATCAATCTCAAGCATG
12  ATGAAAGCGTATGTTGTATCAGTGCCCCATTTTGCAGACTCTTAAGAGCTTTACCTTCTC
13  AGGGGTTGCAGCAGGTGGTGGTCAGCCAGTTGAGGGAGTGTGTGGCTGTTGTCTTGCCAC
14  CATGTGAGTATTGAAACCACCATCCTGAGCTAAGTGTTCAGGCATCTTACCCTCATACCC
15  CGCTACCCTGCTACTGGGAGTTTCGTTTCATTGTATTGGCAGCCGTTTACTAATTAGTAA
16  TGGCGCTTGAGCGAGGCATGTCTTGATATGTATGCCTTAGGAGAGTGTGAGCTCAACTCA
17  ATTCTCATAAGTGTAAGCCACACAACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
18
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1

2 (2) INFORMATION FOR SEQ. ID NO.8:

3 (i) SEQUENCE CHARACTERISTICS:

4 (A) LENGTH: 2399 BASE - #PAIRS

5 (B) TYPE: NUCLEIC ACID

6 (C) STRANDEDNESS: SINGLE

7 (D) TOPOLOGY: LINEAR

8 (ii) MOLECULE TYPE: MRNA

9 (xi) SEQUENCE DESCRIPTION: SEQ. ID NO.7

10

11

12 ATCTTACATGAACACACAAACACTCTCGCAGGCACTAGCCTCAAACCCTCGAAACCTTTT

13 TCCAACAGTTTACACCCCAATTCGGACGCCGCTCCAAGCTCGCTCCGTTGCTCCTTCATC

14 GCACCACCTATTATTTCTAATATCGTAGACGCGACAAGATGTCGGCGCTCGTGCTGAAGC

15 CCTGCGCGGCCGTGTCTATTCGCGGCAGCTCCTGCAGGGCGCGGCAGGTCGCCCCCCGCG

16 CTCCGCTCGCAGCCAGCACCGTGCGTGTAGCCCTTGCAACACTTGAGGCGCCCGCACGCC

17 GCCTAGGCAACGTCGCTTGCGCGGCTGCCGCACCCGCTGCGGAGGCGCCTTTGAGTCATG

18 TCCAGCAGGCGCTCGCCGAGCTTGCCAAGCCCAAGGACGACCCCACGCGCAAGCACGTCT

19 GCGTGCAGGTGGCTCCGGCCGTTCGTGTCGCTATTGCCGAGACCCTGGGCCTGGCGCCGG

20 GCGCCACCACCCCCAAGCAGCTGGCCGAGGGCCTCCGCCGCCTCGGCTTTGACGAGGTGT

21 TTGACACGCTGTTTGGCGCCGACCTGACCATCATGGAGGAGGGCAGCGAGCTGCTGCACC

22 GCCTCACCGAGCACCTGGAGGCCCACCCGCACTCCGACGAGCCGCTGCCCATGTTCACCA

23 GCTGCTGCCCCGGCTGGATCGCTATGCTGGAGAAATCTTACCCGGACCTGATCCCCTACG

24 TGAGCAGCTGCAAGAGCCCCCAGATGATGCTGGCGGCCATGGTCAAGTCCTACCTAGCGG

25 AAAAGAAGGGCATCGCGCCAAAGGACATGGTCATGGTGTCCATCATGCCCTGCACGCGCA

26 AGCAGTCGGAGGCTGACCGCGACTGGTTCTGTGTGGACGCCGACCCCACCCTGCGCCAGC

27 TGGACCACGTCATCACCACCGTGGAGCTGGGCAACATCTTCAAGGAGCGCGGCATCAACC

28 TGGCCGAGCTGCCCGAGGGCGAGTGGGACAATCCAATGGGCGTGGGCTCGGGCGCCGGCG

29 TGCTGTTCGGCACCACCGGCGGTGTCATGGAGGCGGCGCTGCGCACGGCCTATGAGCTGT

30 TCACGGGCACGCCGCTGCCGCGCCTGAGCCTGAGCGAGGTGCGCGGCATGGACGGCATCA

31 AGGAGACCAACATCACCATGGTGCCCGCGCCCGGGTCCAAGTTTGAGGAGCTGCTGAAGC

32 ACCGCGCCGCCGCGCGCGCCGAGGCCGCCGCGCACGGCACCCCCGGGCCGCTGGCCTGGG

33 ACGGCGGCGCGGGCTTCACCAGCGAGGACGGCAGGGGCGGCATCACACTGCGCGTGGCCG

34 TGGCCAACGGGCTGGGCAACGCCAAGAAGCTGATCACCAAGATGCAGGCCGGCGAGGCCA

35 AGTACGACTTTGTGGAGATCATGGCCTGCCCCGCGGGCTGTGTGGGCGGCGGCGGCCAGC

36 CCCGCTCCACCGACAAGGCCATCACGCAGAAGCGGCAGGCGGCGCTGTACAACCTGGACG

37 AGAAGTCCACGCTGCGCCGCAGCCACGAGAACCCGTCCATCCGCGAGCTGTACGACACGT

38 ACCTCGGAGAGCCGCTGGGCCACAAGGCGCACGAGCTGCTGCACACCCACTACGTGGCCG

1   GCGGCGTGGAGGAGAAGGACGAGAAGAAGTGAGGAGCGCCAGAGGCTCTTTGGGCGGAGA

2   CAGCTTCAAAGCGAGGGGGCGTATTAGCAGTACCGTAAATATGCACTGATGGGTGATGCG

3   GGTGTCCTCCTTTATATTGAATGGGGTCAAAATAGGCGGCGGGTCAAATGTTTCCTTTTT

4   GAGTGGTGTCACAGCATGGGGCACGTGTGCGGAGGCCAGTAGGCTGTTCACTGCACGCTG

5   GCATTAGGCGTAGGTACTGGCATGAGGGAGCGCGGCTTGCTAACCGAATGGCGTATCCCT

6   CCAGGGCACGTCGGAATGGCGCGTGCCCATCAACGCAAATTCTTGGCCTTCATCGCTTCT

7   GGATATTGAAGCTGCACAAACCTGCATTCTATTTGCTTGTTTACACGTGCCCCAATCTTG

8   GTTGGAAGCTAAACATGTTTGGGAACAATTCATCTTACTAAAGCGTGTGGGGGTTGAGGA

9   TGCGCACGTTGTGCGCTGGTGGGTGGGCGGGAACGTGGGTAGCATTTAGGCTAGCTGGCA

10   TACGACAACGGGGCCCGTGAGGATTGAGCACTTGACTCGCGAACTTATGAACGTAGCGCT

11   TTATACCCACCGTATGCGATTGACGTTGGTGTAGGCAACCAGGCGGTAGGAAGGCGGAGA

12   GATGCATTGCAAACGCCTGTAAAAGAACGGCATAGCTACTAGACACTCTGATGTGGACCC

13   TTGGCGCAGCCACGACAGGAGAGGTGTGCATCAGCCGCTTGTAAGCACGCACTTCTGAG

14

1

(2)　　INFORMATION FOR SEQ. ID NO.9:

(i)　　SEQUENCE CHARACTERISTICS:

(A)　　LENGTH: 2421 BASE - #PAIRS

(B)　　TYPE: NUCLEIC ACID

(C)　　STRANDEDNESS: SINGLE

(D)　　TOPOLOGY: LINEAR

(ii)　　MOLECULE TYPE: MRNA

(xi)　　SEQUENCE DESCRIPTION: SEQ. ID NO.9

GCGGAATTACTAGTGATAAGCAGTGGTAACAACGCAGAGTCGCGGGCAGGGACTCGATCA

GTTGTTATGTGTTGCCCCGTGGTTGCAAGTAGGCACGCAGGGCGTGCAAGGCATGTTGCT

GTCCGTGCAGCAGGGCCAACATCTGAGTGTGATTGTCCTCCAACACCTCAGGCCAAGCTG

CCTCACTGGCAGCAGGCTCTGGATGAGCTCGCCAAGCCCAAGGAGAGCAGGAGGTTGATG

ATCGCGCAAATCGCCTCCGCTGTTCGTGTCGCTATTGCTGAGACCATTGGCTTGGCCCCA

GGAGATGTCACCATTGGGCAGCTCGTGACTGGGCTGCGTATGCTTGGCTTTGATTATGTC

TTTGACACCCTGTTTGGTGCTGACCTGACCATTATGGAGGAGGGAACGGAGCTGCTGCAT

CGCCTGCAGGACCATCTGGAGCAGCACCCCAACAAGGAGGAGCCACTGCCCATGTTCACC

AGTTGCTGCCCAGGCTGGGTTGCCATGGTTGAAAAGAGCAATCCTGAGCTCATCCCCTAC

CTGTCATCTTGCAAGTCGCCTCAGATGATGCTTGGGGCCGTTATCAAGAACTACTATGCA

CAGCAGGTTGGAGTGCAGCCCAGTGACATCTGCAACGTGTCAGTCATGCCATGCGTACGC

AAGCAGGGAGAGGCTGACCGGGAGTGGTTCAACACCACAGGTGCAGGCCTTGCCCGTGAT

GTTGATCATGTGGTGACTACTGCTGAGGTTGGTAAGATATTCCTGGAGCGTGGCATCAAG

CTGAATGAGCTGCCAGAGAGCAACTTTGACAACCCCATTGGCGAGGGCACAGGTGGTGCT

CTGCTGTTTGGCACCACTGGAGGTGTCATGGAGGCAGCACTTCGCACAGTCTATGAAGTG

GTGACCCAGAAGCCCATGGGTCGTGTTGACTTTGAGGAGGTGCGAGGCCTTGAAGGAATC

AAGGAGGCAGAGATCACACTCAAGCCAGGAGACGACAGCCCATTCAAAGCCTTCGCAGGA

GCTGATGGGCAGGGCATCACGCTCAAGATTGCAGTAGCCAATGGGCTTGGCAATGCCAAG

AAGCTCATCAAGAGCCTGTCAGAGGGCAAGGCCAAGTATGATTTCATTGAGGTCATGGCA

TGCCCTGGTGGCTGCATTGGCGGAGGCGGTCAGCCCCGCAGTACTGACAAGCAGATCCTG

CAGAAGCGCCAGCAGGCTATGTACAACCTGGATGAGCGCAGTACCATCCGCCGCAGCCAT

GATAACCCATTCATCCAGGCGCTGTATGACAAGTTCCTAGGCGCACCCAACAGCCACAAG

GCACATGATCTGCTGCACACACACTATGTGGCAGGTGGAATTCCAGAGGAGAAGTGAGGG

ACCGAGGCCGGAGTGGTGTTATTAGTGTAGAGCTAGGCAGCAGGGATCTGGCCGCATTTG

GGTGCTGTTGTTTGGTTTGGCATCAAAGATATGATGAATGTACAATCTATTGGGTTCTTT

GTATCTCATTCATGACTGCTGCTTGGTGAGGTATGGGCCAGGAAGAAGCCCGCATCAATG

CATGTGAACTAGGTGGCTCCACATATGAACCCTATCTGGATGTTTAAGGTACCTGAAACA

1   ATAGTGCATCGGCTCTGCATGGCTCAACAACCTGTCTTCAGAGCAGGTGTATTCCACACC

2   ATCTTGATTTACCTACCACTCTGTAGTTCAAGTGGTCAAATTGAATGTCTATGGCAGCTA

3   CGCCTGCAGTTCATAGTCTATGAAGGTTTCACCAGAGTCCATGTCCCTCATATTTTTTGT

4   TTTATATGCCTTGATTATGCCCCTTGAACCATGCTCAATGCACACAAGTTGGTCGCAGGA

5   CAGGCGGCATCGTACATCTCAATTTTCAGAACTTGTCAGTGCGGCATTGCCTTATTTGTA

6   CTCTTGCAGTCCTGTTTCACCCTTGCTACTGCCTTGCATGCATCTTGTTTTTGCAAGCAA

7   CAGCTCATGCATTGCAATCGATCATCACGTACATCCGTGCCATATTCACATGGTTTTGAC

8   TTGCAAATCAACCACCAGGCAGTGGGTAAATTGCCAGGCTGGGTGCACTTTGGGCCATTT

9   GGGCAGCCCTCTTGTGGCGAGCTTTGCTGCAGGGCCAAGCTGAGTGCATCAGACTCAGCA

10   GGCTGCTGCTGGCACTGTAGAATGCTGAAAAGGGCATTCAACTACATGTCATTATTAGGT

11   TGACCTGAGACAGCCGTAAGAATATCATTGTGTGCTGAACTTAGTCGTCAATGTCATGCC

12   ATGATGTGTGTTTCAGGGATGGATAAGGGAGGTCCTTCCTCAATTACATGCCTTTCAAGA

13   GACTTCAATATCTGTTGTCAGTGACTTGTTTGTGTTTGCTTAATCCAGTGGTTCTCAAAA

14   AAAAAAAAAAAAAAAAAAAAA

15